

CLAIMS

What is claimed is:

1. An apparatus to provide hemostasis at a blood vessel puncture site, comprising:
 - a hemostasis material; and
 - a clot formation accelerator, wherein said clot formation accelerator is substantially dispersed throughout said hemostasis material.
2. The apparatus of claim 1 wherein said clot formation accelerator is a clot agglomeration.
3. The apparatus of claim 1 wherein said clot formation accelerator is Chitosan.
4. The apparatus of claim 1 wherein said clot formation accelerator is a thrombogenic agent.
5. The apparatus of claim 4 further comprising a polysaccharide.
6. The apparatus of claim 6 wherein said polysaccharide is Chitosan.
7. An apparatus to provide hemostasis at a blood vessel puncture site, comprising:
 - a hemostasis material;
 - a clot formation accelerator; and
 - a polysaccharide,

wherein said clot formation accelerator and said polysaccharide are substantially dispersed throughout said hemostasis material.
8. The apparatus of claim 7 further comprising a cross-linking agent.
9. The apparatus of claim 7 wherein said clot formation accelerator is a thrombogenic agent.

10. The apparatus of claim 7 wherein said polysaccharide is Chitosan.
11. An apparatus to provide hemostasis at a blood vessel puncture site, comprising:
 - a hemostasis material;
 - a cross-linking agent;
 - a polysaccharide; and
 - a clot formation accelerator,wherein said cross-linking agent, said clot formation accelerator, and said polysaccharide are substantially dispersed throughout said hemostasis material.
12. The apparatus of claim 11 wherein said clot formation accelerator is a thrombogenic agent.
13. The apparatus of claim 11 wherein said polysaccharide is Chitosan.
14. The apparatus of claim 11 wherein said cross-linking agent is a formaldehyde.
15. A method for forming a clot formation accelerator loaded hemostasis material, comprising:
 - heating gelatin granules in water;
 - adding a cross-linking agent;
 - mixing a clot formation accelerator to the cross-linking agent and heated gelatin solution; and
 - adding air to form a gelatin foam hemostasis material matrix,wherein said clot formation accelerator is substantially dispersed throughout said hemostasis material.

16. The method of claim 15 wherein said dissolving further comprises adding a polysaccharide.
17. The method of claim 16 wherein said polysaccharide is Chitosan.
18. The method of claim 16 wherein the clot formation accelerator is a thrombogenic agent.
19. The method of claim 15 further comprising drying said gelatin foam hemostasis material matrix above a freezing point temperature.
20. A method for forming a clot formation accelerator loaded hemostasis material, comprising:
 - heating gelatin granules in water;
 - adding a cross-linking agent;
 - mixing a clot formation accelerator to the cross-linking agent and heated gelatin solution; and
 - drying said clot formation accelerator mixture at a temperature above a freezing point temperature to form said hemostasis material,
 - wherein said clot formation accelerator is substantially dispersed throughout said hemostasis material.
21. The method of claim 20 wherein said heating further comprises adding a polysaccharide.
22. The method of claim 21 wherein said polysaccharide is Chitosan.
23. The method of claim 21 wherein the clot formation accelerator is a thrombogenic agent.

24. An apparatus for forming a clot formation accelerator loaded hemostasis material, comprising:

means for heating gelatin granules in water;

means for adding a cross-linking agent;

means for mixing a clot formation accelerator to the cross-linking agent and heated gelatin solution; and

means for adding air to form a gelatin foam hemostasis material matrix,

wherein said clot formation accelerator is substantially dispersed throughout said hemostasis material.

25. The apparatus of claim 24 wherein said means for dissolving further comprises adding a polysaccharide.

26. The apparatus of claim 25 wherein said polysaccharide is Chitosan.

27. The apparatus of claim 25 wherein the clot formation accelerator is a thrombogenic agent.

28. The apparatus of claim 24 further comprising means for drying said gelatin foam hemostasis material matrix above a freezing point temperature.

29. An apparatus for forming a clot formation accelerator loaded hemostasis material, comprising:

means for heating gelatin granules in water;

means for adding a cross-linking agent;

means for mixing a clot formation accelerator to the cross-linking agent and heated gelatin solution; and

means for drying said clot formation accelerator mixture at a temperature above a freezing point temperature to form said hemostasis material,

wherein said clot formation accelerator is substantially dispersed throughout said hemostasis material.

30. The apparatus of claim 29 wherein said means for heating further comprises

adding a polysaccharide.

31. The apparatus of claim 30 wherein said polysaccharide is Chitosan.

32. The apparatus of claim 30 wherein the clot formation accelerator is a

thrombogenic agent.